

Application/Control Number: 10/812,108
Art Unit: 3683

Docket No.:
BA/Div App

APPLICANTS' RESPONSE TO 11/30/05 NON-FINAL OFFICE ACTION

I. DRAWINGS

A. OBJECTION TO FIGURE 9

The Examiner objected to Figure 9 on the ground that it showed modified forms of the invention in a single drawing. See November 30, 2005 Non-Final Office Action ("11/30/05 OA"), ¶ 1, at p. 2. The Applicant respectfully disagrees with the objection. The rule cited by the Examiner provides as follows: "Modified forms of construction must be shown in separate views." See 37 CFR 1.84(h)(5) (emphasis added). The drawing objected to does not show any form of construction. Rather, Figure 9 shows possible applications of the invention. Figures 1 through 8 show the "forms of construction" of the invention.

While Figure 9 does show different embodiments of the invention in a single drawing, the forms of construction of the invention are not the subject of the drawing; instead, Figure 9 is expressly described as a depiction of the application and location on the archery bow for the different embodiments:

Figure 9 is a general view of an archery bow with the preferred embodiments shown attached in several possible places.

See Specification at p. 6, lines 26-27. Each of the claimed embodiments is shown in a separate drawing. For example, figure 8a shows the most general construction of the claimed archery bow ring damper, Figure 8b shows a preferred embodiment of the ring

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damper with a concentric, stabilizing ring, and Figure 8c shows the ring damper with a mounting insert (55) and foam insert (57). Figure 9 is not intended to show the construction of the embodiments of the invention, but to show their use on an archery bow.

B. OBJECTION TO REFERENCE NUMBERS "40" AND "20"

The Examiner objected to reference number 40 on the ground that it is used to describe both an archery bow (Specification, at p. 7, line 23), and the finned wrap around damper (*id.*, at p. 8, line 11), thereby failing to comply with 37 CFR 1.84(p)(4). See 11/30/05 OA. ¶ 2, at 2-3. The use of reference number "40" on page 7, line 23, was correct, but Figures 1, 2 and 3 do not show an archery bow. Therefore, the Applicant has amended the Specification to include a parenthetical indicating that reference number 40 is "shown in Figure 9".

The uses of reference number "40" on page 8, lines 11 and 13, of the Specification, were typographical errors. The references should have read as reference number "20". Therefore, the Applicant has amended the Specification to reflect the correct number for the finned wrap around damper on pg. 8 lines 11 and 13 as "20".

Similarly, the Examiner objected to the use of both numbers "20" and "40" to designate the wrap around damper. See 11/30/05 OA. ¶ 3, at 3. As noted above, the use of reference number "40"

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was a typographical error. The Applicant has amended the Specification to designate the wrap around damper with reference number 20 in all locations, so as to correspond with Figure 5.

C. OBJECTION TO REFERENCE NUMBER "54"

The Examiner objected to reference number 54 in Figure 8b, on the ground that it is not mentioned in the description and, therefore, does not comply with 37 CFR 1.84(p)(5). See 11/30/05 OA, ¶ 2, at 2-3. The Applicant has amended the Specification as follows (amendment underlined):

Figures 8b and 8c show yet another embodiment of the finned ring damper. The finned ring damper 50' is made of a resilient, elastomeric material, such as rubber, elastomer, and elastic polymers. A finned ring damper 50 is molded to form a series of fins 52 on a base structure 51. Base structure 51 forms a ring with an inner surface 53. The radial fins 52 have a middle portion between the ring-shaped base 51 and a fin tip, where a stabilizing ring 54 is located in the middle portion, which joins the radial fins 52. An mounting insert 55 fits into the inner surface 53 of the ring damper 50'. The mounting insert 55 is cup-shaped and has a mounting hole 56. The mounting hole 56 can receive a bolt (not shown) to secure the damper 50' to an object, such as an archery bow. For example, as shown in Figure 9, the limb bolts (not shown) that secure the bow limbs 41 to the grip structure 42, can be used to mount the finned damper 50' to the bow. In an additional embodiment, the cavity formed by the cup of the mounting insert 55 can be filled with a foam insert 57, for increased damping.

The new sentence is taken directly from claim 18 as filed

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with the original parent application (see claim 18, at p. 4 of Publication No. US 2003/159,684).¹ Claim 18 was also included in this divisional application. Applicant relies on the language of claim 18, as originally filed, in making the above amendment to the Specification without adding new matter.

II. CLAIM REJECTIONS UNDER 35 USC § 112

The Examiner rejects claim 18 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. See 11/30/05 OA. ¶ 7, at 5. Specifically, the Examiner objected to the difference between independent claim 17, which included the limitation that the fins are "not constrained", and dependent claim 18, which included the limitation that the fins are joined in the middle of the fins by a stabilizing ring. The Examiner interpreted this additional limitation "as a means of constraining the fins." Id.

The Applicant has canceled claim 18 and added a new independent claim 21, which recites the stabilizing ring limitation, but does not contain the "not constrained" language of claim 17.

¹ Claim 18 read as follows: "The vibration damping device of claim 17 wherein the radial fins have a middle portion between the ring-shaped base and a fin tip, and wherein a stabilizing ring is located in the middle portion and joins the radial fins."

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III. CLAIM REJECTIONS UNDER 35 USC §102

A. THE GRAF REFERENCE

The Examiner rejected claim 17 under 35 USC 102(e2) as being anticipated by U.S. Patent No. 6,718,964 to Graf ("Graf"). See 11/30/05 OA ¶ 9, at pp. 5-6. The Examiner argued that the cross-section shown in Figure 7 of Graf shows "a plurality of fins ... between elements 31". Id., at p. 6. The Examiner has misinterpreted Figure 7 of Graf. Elements 31 shown in Figure 7 are the recessed "flutes 31" for retaining the spring rods (19):

The damping element 17 includes a plurality of recessed flutes (shown in FIGS. 6 and 7 discussed below). The rods 19 are configured to fit within the recessed flutes.

See Graf, at Col. 4:33-35. Thus, contrary to the Examiner's argument, the areas "between elements 31" are not fins, because Graf's invention inserts the spring rods (19) into the flutes (31).

Because the flutes (31) of Graf retain the metal spring rods (19), the Examiner also misinterpreted Figure 7 of Graf in finding that the areas "between elements 31" are fins which are "not constrained as shown and are free to vibrate". See 11/30/05 OA ¶ 9, at p. 6. Graf discloses a damper made from several parts, including the metal spring "rods (19) that are configured fit within the recessed flutes". See Graf, at Col. 4:33-35. It was improper to remove from consideration the rods (19) that fit in the flutes (31) in order to create an anticipating design that

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was contrary to the references teaching.

In rejecting dependent claim 18, the Examiner argued that the length of Graf's "ribs" (21) was at least as great as the radius of the "stud 16" (see Graf, at Col. 6:25). See 11/30/06 OA, ¶ 9, at p. 6. The "stud" (16) of Graf does not anticipate the "inner, cylindrical ring surface" element of Applicant's claims. Moreover, Applicant has amended independent claim 17 to change the dimensional limitation. The amended claim now reads as requiring fins having a length "at least half" the overall radius of the damper. This limitation is included in the new independent claim 21. This limitation is not seen in Graf.

In rejecting dependent claim 18, the Examiner argued that the "rib 21" of Graf (see Graf, at Col. 5:17) anticipated the "concentric cylindrical stabilizing ring" element:

Graf shows in figure 7 wherein the radial fins have a middle portion shown radially outside the perforated line of figure 7 between the ring shaped base and the fin tips wherein the middle portion is concentric with the ring shaped base, and wherein a concentric stabilizing ring 21 (at least a central portion between the inner and outer circumferences of the ring) is located in the middle portion and joins the radial fins (by virtue of element 21 forming an integral part of element 17 since the claim language does not preclude the ring being concentrically arranged in a plane other than that in which the fins are located).

See 11/30/05 OA, ¶ 9, at p. 6. Applicant has canceled dependent claim 18, but new independent claim 21 incorporates the element.

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The disc-shaped "ribs 21" of Graf are located at an end of the damper (17) and are separated from the "flutes" (31) by a space. Thus, none of Graf's ribs (21) "joins the radial fins" as claimed by Applicant. The Examiner's argument that Graf's ribs (21) form an integral part of the damper (17) does not overcome the problem that they do not join any ribs. Moreover, Applicant's claim recites "a concentric, cylindrical stabilizing ring". Graf's rib (21) is a disc and is neither cylindrical nor a ring. Applicant has added the word "annular" to emphasize that the "concentric cylindrical stabilizing annular ring" does not read on the disc-shaped "ribs 21" of Graf.

B. THE LEVEN REFERENCE

The Examiner rejected claims 17 and 19 under 35 USC 102(e2) as being anticipated by US Patent 6,526,957 to Leven ("Leven"). See 11/30/04 OA, ¶ 10, at pp. 6-7. The Applicant respectfully disagrees.

Leven does not show or describe "a vibration damper formed of a single piece of elastomeric material". See claims 17 and 21. Rather, Leven is directed to a "coupler for mounting vibration dampers to an archery bow". See Leven, at Col. 1:7-8. Thus, Leven describes a vibration damper (6) and separate coupler (4), connected by a "threaded shaft" (30). Id., at Col. 2:63-64. These parts are not "formed of a single piece of elastomeric

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material", as claimed.

The Examiner argues that Leven shows "a vibration damping device for an archery bow ... having a cylindrical, ring shaped base". See 11/30/04 OA, ¶ 10, at pp. 6-7. Graf does not have a "ring shaped base". Rather, Figure 2 of Graf shows a damper (6) with a bulbous, non-cylindrical structure. The Examiner argues that Graf shows "a plurality of fins shown in the area of the lead line of number 6 shown in figure 2 extending from the ring shaped base in a radial direction from the axis". The structure of the damper (6) shown in Figure 2 of Graf is not described and it cannot be determined whether it shows fins or fin-like structures. The Examiner interprets Figure 2 of Graf as showing such a structure, but the drawing reflects only two such structures. The Applicant has amended independent claim 17 to include the limitation that there are "a plurality of six or more fins", to emphasize that the invention is directed to a damper with many fins, as opposed to what might be shown in Graf. Applicant's new independent claim 21 also includes this limitation.

Applicant's independent claims 17 and 21 include the limitation that the "distance between the proximal end and the distal end of the fins is at least as great as the radius" from the axis to the inner, cylindrical ring surface. The Examiner argues that Figure 3 of Graf shows a damper with such dimensions.

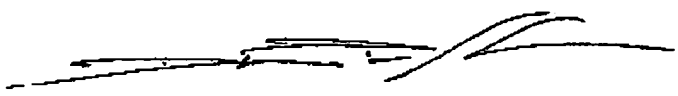
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See 11/30/05 OA, ¶ 10, at p. 7, and ¶ 12, at p. 8. However, the damper (6) shown in Figure 3 of Graf is not the same damper shown in Graf's Figure 2. The damper (6) shown in Leven's Figure 3 does not have fins and cannot anticipate Applicant's claims. Moreover, Applicant has amended independent claim 17 to change the dimensional limitation. The amended claim now reads as requiring fins having a length "at least half" the overall radius of the damper. This limitation is included in the new independent claim 21. This limitation is not seen in Graf.

CONCLUSION

In view of the amendments and arguments set forth above, Applicant respectfully submits that the pending claims are in a condition for allowance.

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